

Cross Lake SMART Corridor

Corridor Description

The corridor spans Lake Washington and eight jurisdictions: Seattle, Medina, Hunts Point, Yarrow Bay, Clyde Hill, Kirkland, Bellevue, Mercer Island and Redmond. Most of the corridor land use is urban or suburban in nature. Major commercial/retail centers exist in downtown Seattle and Bellevue.

Major employers in the corridor include:

- Children's Hospital
- University of Washington
- Swedish Medical Center
- City of Seattle
- King County
- Port of Seattle
- Group Health
- Providence Health
- Harborview Hospital
- Evergreen Hospital
- City of Bellevue
- Bellevue Community College

2009 Population Estimate	216,000
2009 Covered Employment Estimates	
Metropolitan Cities: Seattle, Bellevue	313,127
Core Cities: Kirkland	1,956
Larger Cities: Mercer Island	6,366
Smaller Cities: Medina, Clyde Hill, Beaux Arts, Hunts Point, Yarrow Point	1,043
Unincorporated Urban	58
Rural	-
Total	322,550

Existing Congestion and Mobility Conditions

Roadways: The following facilities operate at 70% of the posted speed limit during peak periods and therefore have been identified as a bottleneck and/or chokepoint by WSDOT:

- SR 520 between Seattle and Bellevue
- I-90 between Seattle and Bellevue
- I-5 downtown Seattle and south of I-90
- I-405 through SMART corridor
- Montlake Blvd from SR 520 north
- SR 99 south of Downtown Seattle

Pavement Conditions³⁰: The following are the pavement condition index (PCI) scores for the Cross Lake SMART Corridor.

Condition	PCI Range
Excellent	89-100
Good	67-88
Fair	49-66
Poor	21-48
Fail	<20

Jurisdiction	2008 Weighted Avg.* Jurisdiction PCI
Seattle	68.2
Bellevue	79.1
Kirkland	56.5
Mercer Island	78.6
Medina	79.3
Clyde Hill	72.2
Beaux Arts	79.5
Hunts Point	95.3
Yarrow Point	60.3
Unincorporated King County	75.8
King County Weighted Average*	70.6

* weighted by length of roadway segment (ft)

Roadway Safety: PSRC is building on the safety policy guidance outlined in VISION 2040 and aligning it with the goals, strategies and objectives identified in the Washington State Strategic Highway Safety Plan, *Target Zero*. This plan aims to reduce serious injury and fatality collisions to zero by 2030 by focusing on four priority areas that promote safer and smarter roadways, safer walkways and pathways for bicyclists or pedestrians, enhanced emergency response systems, and improved passenger and driver behavior. The following map identifies the locations of collisions that resulted in a serious injury or fatality in 2007.

Ferries: Not applicable

Transit: King County Metro, Sound Transit and Community Transit all provide service in this corridor, particularly to Bellevue. In 2006, the SR 520 Bridge had 17 King County Metro bus routes, four Sound Transit routes, one Community Transit route operating on it, while the I-90 Bridge had 13 King County Metro routes and two Sound Transit routes operating between Seattle and East King County. In addition, Sound Transit had six more regional routes serving the I-405 corridor out of Bellevue. King County Metro bus service extended east to Duvall and North Bend.

Existing Transit Congestion: Existing transit congestion in the corridor matches WSDOT's Commonly Congested Commutes, although the transit HOV lanes and reversible corridor on I-90 performs significantly better than the SR 520 bridge without HOV lanes. There is significant

³⁰ Pavement Condition Index (PCI) scores are reported to WSDOT by individual jurisdictions, or are collected by WSDOT in the case of smaller cities, on a biennial basis. PCI scores are a composite measure representing environmental and structural distresses on pavement and measured on 0-100 scale where zero is the lowest. The scores presented in this document are not representative of a jurisdiction's entire roadway network; rather they include the principal and minor arterials for which each jurisdiction has submitted PCI information per requirements of RCW 46.68.113. Scores have been weighted by the length of the measured roadway segments to present a more accurate representation of the condition of the arterial network.

congestion in the SR 520 westbound approach 3+ HOV lane, which is more like a very long queue jump than a typical HOV lane. From the TCI gaps analysis, North and West Seattle riders are less likely to take transit due to the additional transfer required in the University District.

Special Needs Transportation: Within this corridor are major special needs destinations. Medical transportation to and between the numerous regional medical facilities is a major special needs activity, particularly for Medicaid and Medicare patients. With the major recreational, cultural, and shopping destinations on either side of Lake Washington, there is significant demand for special needs transportation.

King County Metro's ADA Paratransit Program provides next-day, shared rides on *Access Transportation* within 3/4 of a mile on either side of non-commuter fixed-route bus service during the times and on the days those routes are operating. Access is a shared-ride shuttle service for people who, because of their disability, are unable to ride the regular fixed-route bus service within King County. Eligibility is based on whether the disability prevents the rider from performing the tasks needed to ride regular bus service some or all of the time. Metro Transit, Pierce Transit, Community Transit, Everett Transit, Kitsap Transit, Intercity Transit, and Jefferson Transit have a joint paratransit eligibility agreement. Persons found eligible by any of those agencies can use paratransit service offered by the other agencies. Applications for eligibility must be submitted to the transit agency that serves the area where the rider lives. Regular accessible bus service is intended to be the primary mode of public transportation for persons with disabilities.

Going beyond the required ADA services, through its Community Transportation Program, King County provides:

- Enhanced Access Transportation Service (expanded service area beyond the 3/4-mile of fixed-route service, advance reservations, etc.)
- Taxi Scrip Program (allows disabled low-income residents to purchase taxi scrip at 50% discount)
- Transit Instruction Program (free training for persons with disabilities on how to ride regular transit)
- Community Access Transportation:
 - CAT Advantage Vans (Provides retired Access and vanpool vehicles to participating agencies, including emergency response, vehicle maintenance and repairs, driver training, and technical assistance)
 - CAT Vanworks (Provides retired Access and vanpool vehicles and pays the cost of standard Vanpool agreement on behalf of local agencies that have a number of clients who are eligible for Metro's ADA Paratransit Access program and are traveling to work sites.)

Other transportation programs at Metro include:

- Job Access Transportation Program or *JARC* (Comprehensive approach to providing transportation to transition low-income and welfare reform clients into employment)

- Rideshare Operations (provides Ridematch, vanpool and Rideshare Plus for sharing the ride to work, school or other frequent destinations. Lift-equipped vehicles are available for vanpools.)
- Custom Bus (service for employers and schools. Routes are designed to meet the specific needs of the business or educational facility. Fares are based on the length of the trip; however, a current Regional Reduced Fare Permit reduced fare sticker or an Access Pass is valid for the fare.)
- Car sharing (King County Metro and the City of Seattle have joined with Mobility, Inc. to introduce the car sharing program, ZipCar, to the Seattle region.)
- Bicycling (Every Metro bus has a bicycle rack that can accommodate two bikes, and many vanpools are also equipped for transporting bikes. No special permit or extra fare is required.)

Community Resources:

- Hopelink coordinates transport to services covered by Medicaid through Medical Transportation Brokerage and provides other community transportation services as a non-profit.
- Crisis Clinic operates the Community Information Line providing information and referral assistance.
- Senior Services has two programs to assist seniors:
 - Senior Shuttles, using both paid and volunteer drivers, transport seniors to hot meal programs, medical appointments, senior centers, grocery stores, and other local destinations. Service area and type of service is specific to each van. Senior Shuttles include the Mt Si Senior Center Shuttle in North Bend.
 - Senior Services Volunteer Transportation with volunteers driving their own vehicles providing transportation to seniors 60 years of age and older living throughout King County to medical and other essential appointments. Volunteers not only provide a ride but also wait with seniors at their appointments before driving them home, offering a helping hand and moral support.

Beyond the transit agency provided special needs transportation services listed above and on Findaride.org, numerous additional human services organizations have been identified as having a transportation role. Please also refer to Appendix C—Inventory of Services—in the Coordinated Plan.

TDM Programs: The Cross Lake SMART Corridor contains the highest density of active Commute Trip Reduction sites in the entire region, with approximately 265 affected employers. Seattle and Bellevue, two of the largest employment centers in the central Puget Sound, are also currently implementing Growth and Transportation Efficiency Center programs in their respective central business districts. Jurisdictions throughout the corridor implement additional residential programs, and WSDOT has partnered with King County Metro and local jurisdictions on Interstate 405 construction mitigation programs, including a new emphasis on vanpooling.

Transportation System Management and Operations: The core freeway system in the corridor is instrumented with cameras and detection equipment to provide data back to traveler information portals such as the WSDOT Flow map. Cameras and detection also assist with quickly identifying incidents from the traffic management centers. There are currently three traffic management centers in the corridor: WSDOT NW Region, Bellevue and Seattle. There are also roving incident management teams to assist with incident clearance to reduce incident-related congestion and delay. Cross Lake is included in various regionwide ITS programs such as 511, transit trip planning and the ORCA regional transit fare card. All major freeways are included in the WSDOT traveler information web and mobile applications displaying travel times. As part of the Urban Partnership program, tolling will put in place on SR 520 in early 2011 utilizing ITS technologies such as tag readers in addition to active traffic management technologies.

Bicycle and Pedestrian Facilities³¹: The Cross Lake SMART Corridor spans Lake Washington and eight jurisdictions: Seattle, Medina, Hunts Point, Yarrow Bay, Clyde Hill, Kirkland, Bellevue, and Redmond. A bicycle/pedestrian path along SR 520 and on the new Evergreen Point Bridge has the potential to connect the region's longest and most popular trails, including: Burke Gilman Trail, Washington Park Arboretum Waterfront Trail, Lake Washington Loop Route, Sammamish River Trail, East Lake Sammamish Trail, as well as many on-street bike routes. WSDOT's SR 520 Transit and HOV project, as part of the overall SR 520 Bridge Replacement and HOV project, is critical in completing design and construction of the SR 520 cross-lake connection.

The I-90 Trail takes riders from the edge of Beacon Hill east across Lake Washington to Mercer Island and Bellevue on the edge of the I-90 floating bridge. In Bellevue, the Greenway Trail that connects to the I-90 trail at Enatai Beach goes eastward through the Mercer Slough and ends at Factoria Boulevard. The next grade-separated multi-use trail begins 1.9 miles east at the Sunset Trail and 161st Avenue SE. The city of Bellevue's 2009 Pedestrian and Bicycle Transportation Plan identifies this missing connection as a unique opportunity to fill one of only five short missing links in this cross-state facility that will link Bellevue residents and people throughout the region to major population centers.

Freight: Major facilities identified in the Cross Lake SMART Corridor are significant to freight and are classified as either T1 or T2 on the State of Washington's freight tonnage classification system, each moving more than 4-10 million tons per year. Regional growth centers within the Cross Lake Corridor are likely to generate smaller specialized deliveries. I-90 is of particular importance for trucks entering and leaving the region to serve the Port of Seattle and the Duwamish Manufacturing and Industrial Center.

Park-and-Ride Lots: The Cross Lake SMART Corridor contains four large park-and-ride lots that contain over 250 stalls. There are 11 smaller park-and-ride lots in the corridor, totaling 3,738 stalls with an average utilization rate of 63% (2009). The majority of these stalls are located at the Eastgate park-and-ride location which alone contains 1,614 stalls.

³¹ Existing conditions provided in fall 2009 by participants in the Bicycle and Pedestrian Advisory Committee.

Park-and-Ride Lot	2009 Capacity	2009 Occupancy	2009 Utilization
Bellevue Foursquare Church	35	4	11%
Eastgate P&R	1,614	1,294	80%
Evergreen Point Bridge	51	44	86%
Grace Lutheran Church	50	42	84%
Mercer Island P&R	447	446	100%
Mercer Island Presbyterian Church	30	4	13%
Mercer Island United Methodist Church	18	10	56%
South Bellevue P&R	519	551	106%
South Kirkland P&R	596	590	99%
South Mercer Center, Mercer Island QFC	21	4	19%
Spokane/Airport	25	22	88%
St. Luke's Lutheran Church-Bellevue	30	5	17%
St. Margeret's Episcopal Church	64	34	53%
St. Thomas Episcopal Church	52	24	46%
Wilburton P&R	186	162	87%

Security and Emergency Management: According to the Regional Transportation Recovery Plan four potential disruption scenarios have been identified in the Cross Lake Corridor. The following describes the potential system disruption/closure and the most likely reroutes. See Maps and Alternate Routing Plan for specific and additional information.

King County Closure of I-90 I-405 Interchange

The I-90 I-405 Interchange is located just south of Bellevue and provides many different access routes to downtown Seattle, I-405 and I-90. It also is a significant freight route for east-west traffic to and from the Seattle-area. The alternative routes for this section of roadway are as follows:

- Use I-5 for north-south through traffic.
- Use SR 18 for south traffic from I-90.
- Use SR 520 for east-west traffic from I-90 to downtown Seattle.
- 148th Ave. SE should be used as a local detour.
- Lake Washington could be used as an additional transportation corridor for passenger-only ferries at various locations.

King County Closure of I-90 Floating Bridge

The I-90 Floating Bridge (Homer Hadley Floating Bridge) connects downtown Seattle to Mercer Island and is one of the main routes connecting downtown Seattle to other major metropolitan areas along the east side of Lake Washington. It also is a significant freight route for east-west traffic to and from the Seattle-area. The alternative routes for this section of roadway are as follows:

- Westbound traffic from I-90 headed to downtown Seattle use I-405, SR 520 to I-5.
- Westbound traffic from I-90 headed south of Seattle use I-405 to I-5.
- Eastbound traffic use SR 520, I-405 to I-90.
- Lake Washington could be used as an additional transportation corridor for passenger-only ferries at various locations.

King County Closure of I-405 SR 520 Interchange

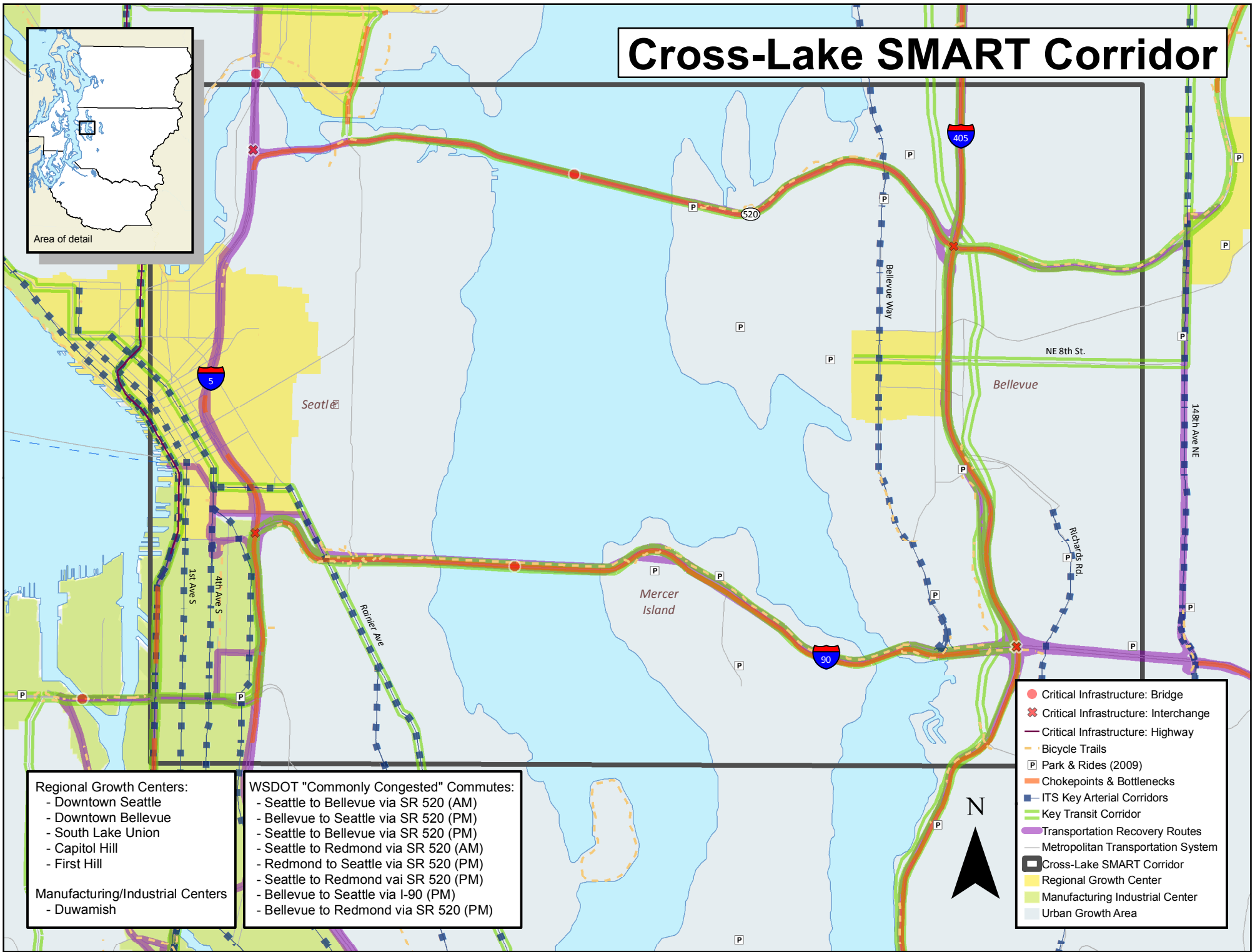
The I-405 and SR 520 Interchange is a major interchange for north-south traffic on I-405 as well as the east-west traffic on SR 520. The alternate routes consist of using I-90 via the floating bridge, or by going around the lake either to the north or to the south. Lake Washington could be used as an additional transportation corridor for passenger-only ferries at various locations.

King County Closure of the SR 520 Floating Bridge

The SR 520 Floating Bridge (Governor Albert D. Rosellini Bridge—Evergreen Point) connects downtown Seattle to the east side of Lake Washington. The alternative routes for this section of roadway are as follows:

- Utilizing I-90 as the alternative for SR 520 is the preferred route for east/west travel.
- Taking 522 on the north side of Lake Washington to I-405 is a secondary option for east/west travel.
- Lake Washington could be used as an additional transportation corridor for passenger-only ferries at various locations.

Cross-Lake SMART Corridor



- Regional Growth Centers:**
- Downtown Seattle
 - Downtown Bellevue
 - South Lake Union
 - Capitol Hill
 - First Hill
- Manufacturing/Industrial Centers**
- Duwamish

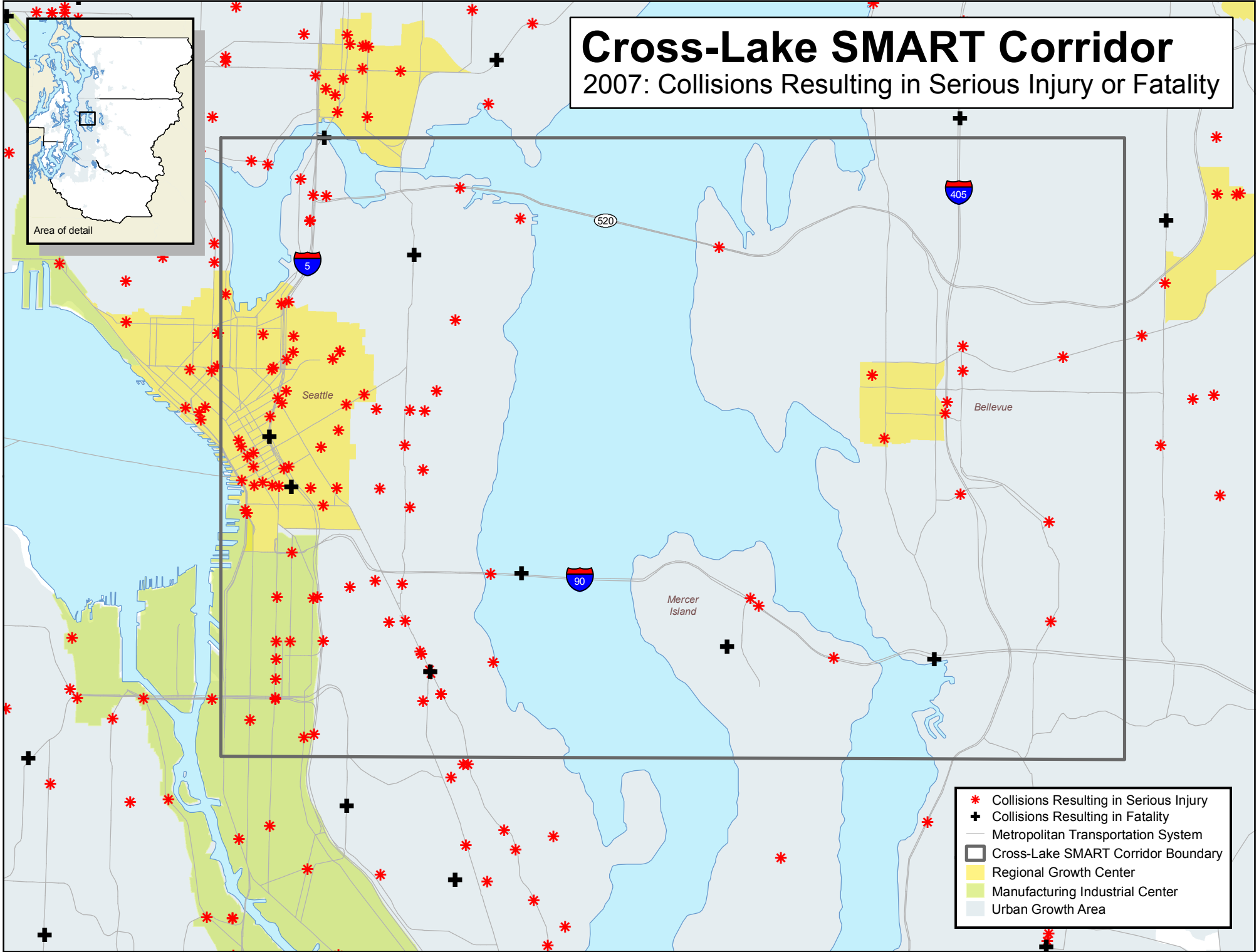
- WSDOT "Commonly Congested" Commutes:**
- Seattle to Bellevue via SR 520 (AM)
 - Bellevue to Seattle via SR 520 (PM)
 - Seattle to Bellevue via SR 520 (PM)
 - Seattle to Redmond via SR 520 (AM)
 - Redmond to Seattle via SR 520 (PM)
 - Seattle to Redmond via SR 520 (PM)
 - Bellevue to Seattle via I-90 (PM)
 - Bellevue to Redmond via SR 520 (PM)

- Critical Infrastructure: Bridge
- ✕ Critical Infrastructure: Interchange
- Critical Infrastructure: Highway
- - - Bicycle Trails
- P Park & Rides (2009)
- Chokepoints & Bottlenecks
- ITS Key Arterial Corridors
- Key Transit Corridor
- Transportation Recovery Routes
- Metropolitan Transportation System
- ▭ Cross-Lake SMART Corridor
- Regional Growth Center
- Manufacturing Industrial Center
- Urban Growth Area



Cross-Lake SMART Corridor

2007: Collisions Resulting in Serious Injury or Fatality



- * Collisions Resulting in Serious Injury
- + Collisions Resulting in Fatality
- Metropolitan Transportation System
- ▭ Cross-Lake SMART Corridor Boundary
- Regional Growth Center
- Manufacturing Industrial Center
- Urban Growth Area

Cross-Lake SMART Corridor

Freight & Goods Transportation System

908

513

520

90

99

5

405

- Cross Lake
- Intermodal Connectors
- At Grade Railroad Crossing
- Ferry Terminals
- Truck Count Locations
- Marine Deepwater Ports
- Major Airports
- Mainline/Branch Railroads
- FHWA Intermodal Connectors
- State Heavy Tonnage Routes (2009) Tonnage Class
 - T-1 (> 10 million tons/year)
 - T-2 (4-10 million tons/year)
 - Current MTS Roadway
- Manufacturing Industrial Center
- Incorporated Urban Areas
- Unincorporated Urban Areas
- Goods Dependent Employment > 2,500 / TAZ